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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,262	07/25/2003	Hakan P.O. Larsson	03370-P0047A	7595

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EXAMINER

WILLIAMS, THOMAS J

ART UNIT PAPER NUMBER

3683

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/627,262

Applicant(s)

LARSSON ET AL.

Examiner

Thomas J. Williams

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Acknowledgment is made in the receipt of the amendment filed July 8, 2005.

#### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the concepts of a “floor” for the recess and the house and the “peripheral wall” for the recess and the house are not in the originally filed disclosure. As is it is unclear to the examiner what exactly constitutes the outer peripheral wall, as such various interpretations will be applied.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,635,761 to Smith et al.

Re-claims 1 and 13, Smith et al. disclose a modular disc brake, comprising: a service brake mechanism 36 having at least one thrust unit (brake 36 is capable of acting as a service brake) and modules in the form of a frame 12, a cover 60, and a house 30 for the service brake, a part of the house is positioned between and outside the frame and the cover and mounted to be substantially unloaded during braking, see column 3 lines 18-24; the frame includes a recess defined by an outer peripheral wall (either the surface adjacent 13 or the interior surface of the

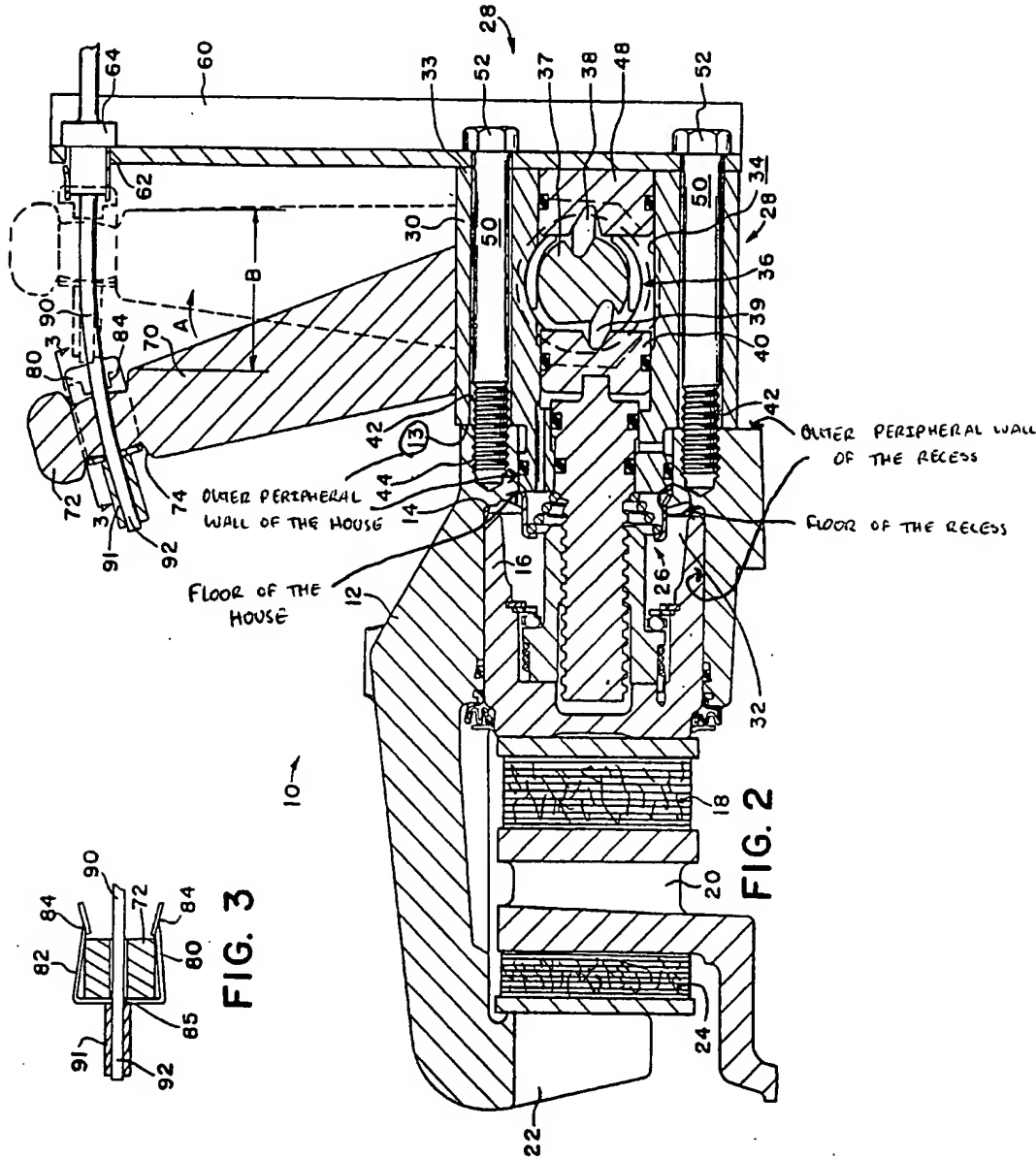
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recess, which can be broadly interpreted as an outer peripheral wall with respect to the central hole volume) and a floor (the flange portion the extends inwardly from the interior surface the recess, see attached figure), the floor has a hole for the thrust unit; the house comprises an outer peripheral wall (either 13 or the outer surface of the inserted portion of the house in the recess) and a floor (the base of the inserted portion of the house that is in the recess), the floor has a hole for the thrust unit; the outer peripheral wall of the house corresponds in size and shape to the outer peripheral wall of the recess, the house is disposed in the recess in the frame such that the floor of the house abuts the floor of the recess, the holes of the recess and the house are aligned and allow the thrust unit to pass therethrough.

Re-claim 2, a lower part of the house is received in the recess.

Re-claim 4, the brake mechanism is a single pre-mounted unit received in the house.

Re-claim 11, the house receives a lever 70 of the brake mechanism.



***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 3, 5-10 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al.

Re-claim 3, Smith et al. fail to specifically teach the house being made from a plastic. The use of plastic in place of metal is known in the art as a way of reducing costs and weight. It would have been obvious to one of ordinary skill in the art to have manufactured the house of Smith et al. from a plastic material, thus reducing manufacturing costs as well as weight.

Re-claim 5, the brake is pre-mounted in the house 30.

Re-claim 6, the cover 60 covers and open end of the house, see figure 2.

Re-claim 7, the house is open in one direction to receive the brake, and is open in another direction to receive the thrust unit, and has a space for the lever 70.

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Re-claim 8, the frame 12 has openings for receiving a plurality of pull rods 50, each pull rod is clamped the frame 12 and the cover 60, the pull rods have heads at one end 52 and are threaded at another end. However, Smith et al. fail to teach the use of nuts for holding the pull rods in place, but rather have the pull rods threaded to the frame. It would have been obvious to one of ordinary skill in the art to have simply passed the pull rods through the frame of Smith et al. then having used nuts when securing the pull rods in place, this would have reduced costs by eliminating the need for providing threaded holes in the frame and using off the shelf items, such as nuts to secure the bolts (or pull rods) in place.

Re-claims 9 and 16, Smith et al. teach a gasket between the house and the cover, see gasket located in element 48. This is interpreted as being between the house and the cover, when viewing the house as an elongated member.

Re-claims 10 and 17, the house is pre-tensioned by the pull rods.

Re-claim 12, Smith et al. fail to teach the pull rods not passing through the house. It would have been an obvious to one of ordinary skill in the art as a matter of design choice to have simply placed the pull rods of Smith et al. outside the house, such as by shrinking the size of the house to fit between the pull rods thus reducing weight, and since applicant fails to disclose that having the pull rods outside the house solves any stated problem or is for any particular purpose and it appears that having the pull rods of Smith et al. outside the house would have performed equally well. It is noted that Smith et al. specifically teaches that the pull rods are not threaded to the house, thus interaction between the pull rods and house is not necessary.

Re-claim 14, Smith et al. teach a modular disc brake, comprising: a brake mechanism 36 having at least one thrust unit (brake 36 is capable of acting as a service brake) and modules in

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the form of a frame 12, a cover 60, and a house 30 and a number of pull rods, the pull rods clamp between the frame and the cover; the frame includes a recess defined by an outer peripheral wall (either the surface adjacent 13 or the interior surface of the recess, which can be broadly interpreted as an outer peripheral wall with respect to the central hole volume) and a floor (the flange portion the extends inwardly from the interior surface the recess, see attached figure), the floor has a hole for the thrust unit; the house comprises an outer peripheral wall (either 13 or the outer surface of the inserted portion of the house in the recess) and a floor (the base of the inserted portion of the house that is in the recess), the floor has a hole for the thrust unit; the outer peripheral wall of the house corresponds in size and shape to the outer peripheral wall of the recess, the house is disposed in the recess in the frame such that the floor of the house abuts the floor of the recess, the holes of the recess and the house are aligned and allow the thrust unit to pass therethrough. However, Smith et al. fail to teach the pull rods as not passing through the house.

It would have been an obvious to one of ordinary skill in the art as a matter of design choice to have simply placed the pull rods of Smith et al. outside the house, such as by shrinking the size of the house to fit between the pull rods thus reducing weight, and since applicant fails to disclose that having the pull rods outside the house solves any stated problem or is for any particular purpose and it appears that having the pull rods of Smith et al. outside the house would have performed equally well. It is noted that Smith et al. specifically teaches that the pull rods are not threaded to the house, thus interaction between the pull rods and house is not necessary.

Re-claim 15, Smith et al. teach a modular disc brake, comprising: a service brake mechanism 36 has a thrust unit (brake 36 is capable of acting as a service brake) and modules in



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the form of a frame 12, a house 30 for the service brake mechanism, a cover, the house is mounted not to take up any load during braking, see column 3 lines 18-24; the brake is a single pre-mounted unit received in the house; the cover covers an open end of the house; the house has a space for a lever 70 of the brake; the frame and cover have openings for a plurality of pull rods; the frame includes a recess defined by an outer peripheral wall (either the surface adjacent 13 or the interior surface of the recess, which can be broadly interpreted as an outer peripheral wall with respect to the central hole volume) and a floor (the flange portion the extends inwardly from the interior surface the recess, see attached figure), the floor has a hole for the thrust unit; the house comprises an outer peripheral wall (either 13 or the outer surface of the inserted portion of the house in the recess) and a floor (the base of the inserted portion of the house that is in the recess), the floor has a hole for the thrust unit; the outer peripheral wall of the house corresponds in size and shape to the outer peripheral wall of the recess, the house is disposed in the recess in the frame such that the floor of the house abuts the floor of the recess, the holes of the recess and the house are aligned and allow the thrust unit to pass therethrough.

However, Smith et al. fail to specifically teach the house being made from a plastic. The use of plastic in place of metal is known in the art as a way of reducing costs and weight. It would have been obvious to one of ordinary skill in the art to have manufactured the house of Smith et al. from a plastic material, thus reducing manufacturing costs as well as weight.

In addition, Smith et al. fail to teach the use of nuts for holding the pull rods in place, but rather have the pull rods threaded to the frame. It would have been obvious to one of ordinary skill in the art to have simply passed the pull rods through the frame of Smith et al. then having used nuts when securing the pull rods in place, this would have reduced costs by eliminating the

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need for providing threaded holes in the frame and using off the shelf items, such as nuts to secure the bolts (or pull rods) in place.

***Response to Arguments***

8. Applicant's arguments filed July 8, 2005 have been fully considered but they are not persuasive. As stated above it is unclear to the examiner what exactly the applicant intends to define as the floor and the peripheral walls. It is unclear to the examiner how the applicant intends to obtain a patent based upon concepts that are not defined nor discussed in the disclosure. Clearly this is inappropriate. Any arguments regarding what Smith et al. may or may not have are moot. Thus the examiner is entitled to broadly interpret what is a floor and what is a peripheral wall.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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10. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, can be reached at 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

September 14, 2005

THOMAS WILLIAMS  
PATENT EXAMINER

*Thomas Williams*

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9-14-05